International Journal of Applied Research

T Chandana
Nursing Tutor, Narayana
College of Nursing, Nellore,
Andhra Pradesh, India

Dadam Revathi
Asst. Professor, Department Of
Obstetrics& Gynaecological
Nursing, Narayana College Of
Nursing, Nellore, Andhra
Pradesh, India

Dr. Arumugam Indira
Principal, Narayana College of
Nursing, Chintha Reddy
Palem, Nellore, Andhra
Pradesh, India

A study to assess the knowledge regarding collection of stool specimen for infants among staff nurses and nursing students at Narayana Medical College Hospital, Nellore

T Chandana, Dadam Revathi and Dr. Arumugam Indira

Abstract
The Study aims are to assess the knowledge regarding collection of stool specimen for infants among staff nurses and nursing students and to identify the relationship between the knowledge level and socio demographic variables of staff nurses and student nurses. The quantitative research approach and descriptive research design was adopted for the study. The study was conducted in Narayana medical college hospital.15 staff nurses and 15 nursing students were selected by using Non Probability Convenience Sampling Technique. Semi structured Questionnaire method was used for collecting the information from samples. Data analysis done by using descriptive and inferential statistics. The results revealed that 6 (40%) staff nurses have inadequate knowledge, 9(60%) staff nurses had moderately adequate knowledge regarding collection of stool specimen for infants. 12(80%) nursing students have inadequate knowledge, 3(20%) nursing students had moderately adequate knowledge regarding collection of stool specimen for infants. The study concluded that staff nurses have adequate knowledge than the nursing students regarding collection of stool specimen for infants. staff nurses socio demographic variables have shown non-significant association with the level of knowledge and age in years, education qualification, source of information and any inservice educational programme and nursing students socio demographic variables have shown non-significant association with the level of knowledge and age in years, education qualification, source of information, attended any work shop, any witness of collection of stool specimen shown non-significant association with level of knowledge.

Keywords: Knowledge, collection, stool specimen, infants, Staff Nurses, Nursing Students

Introduction

Stool specimen collection is the process of obtaining a sample of a infants feces for diagnostic purposes. This procedure is used to test for infectious organisms, mucus, fat, parasites, or blood in the stool. Same like collection of urine specimen are using for infants to diagnostic purpose.

A stool specimen or culture can also be called as fecal specimen or culture. A specimen of freshly passed feces of 0.5 to 1 ounce (15 to 30 ml) is collected, without contamination of urine or toilet tissue, into a small container that may have a small spoon or spatula attached inside the lid of the cup for easier collection of the sample.

To collect a stool specimen for an infant, the stool is scraped from the diaper, being careful not to contaminate the stool with urine. Use the correct procedure for obtaining a specimen or ensure that the client or staff follows the correct procedure. Aseptic technique is used in specimen collection to prevent contamination that can cause in accurate test results.

Void before the specimen collection. Do not place toilet tissue in the bed pan after defecation. Contents of the paper can affect the laboratory analysis. Notify the nurse as soon as possible after defecation, particularly for specimens that need to be sent to laboratory immediately.

Stool can be cultured for disease causing bacteria. A stool sample is placed in an incubator for at least 48 to 72 hours and any disease causing bacteria are identified and isolated. Remember that not all bacteria in the stool cause problems. Infant, about half of stool is bacteria, most of which live there normally and are necessary for digestion. In a stool culture,

Correspondence
T Chandana
Nursing Tutor, Narayana
College of Nursing, Nellore,
Andhra Pradesh, India

lab technicians are most concerned with identifying bacteria that cause disease. Diarrhea is one of the leading causes of morbidity and mortality.

Worldwide: with an estimated 1.8 million deaths annually, primarily in infants in developing countries. There are many causes of diarrhea, but in 40% of the cases, the etiology is still unknown. Viruses known to cause acute gastroenteritis in infants are rotavirus, astrovirus, adenovirus and calicivirus. Though rotavirus is the most common etiological agent of viral diarrhea, enterovirus is also known to cause diarrhea in infants. Although isolated case-studies of infants with acute gastroenteritis having enteroviral infections have been reported and small-scale epidemiological studies have been conducted at various places in the world and to a lesser extent in India.

Human rotavirus is the most important etiologic agents of acquired diarrhea in infants worldwide.

In India: - About 20-30% of hospitalized diarrhea cases are caused by rotavirus. Rotavirus gastroenteritis can lead to severe dehydration and consequently it is estimated that rotavirus gastroenteritis accounts for approximately 39% of all deaths due to diarrhea in infants and less than 5 years of age worldwide. The infection is transmitted from infant to infant through feco-oral route. Rotavirus is highly contagious, only a small infectious dose (< 100 virus particles) is to infect another person. The nurse play an important role in collection of stool specimen for infants during his her critical situation for these reasons the researcher has under taken this research for identifying knowledge among staff nurses and nursing students.

Statement of the Problem
A study to assess the knowledge regarding collection of stool specimen for infants among staff nurses and nursing students at Narayana Medical College Hospital, Nellore.

Objectives
- To assess the level of knowledge regarding collection of stool specimen for infants among staff nurses in NMCH, Nellore.
- To assess the level of knowledge regarding collection of stool specimen for infants among nursing students in NMCH, Nellore.
- To compare the level of knowledge regarding collection of stool specimen for infants among staff nurses and nursing students.
- To find out the association between the level of knowledge regarding collection of stool specimen for infants among staff nurses and with their socio-demographic variables.
- To find out the association between the level of knowledge regarding collection of stool specimen for infants among nursing students and with their socio-demographic variables.

Methodology
Research Approach: Quantitative Research Approach
Research Design: Non experimental descriptive research design.
Setting: Pediatric Ward, NICU, PICU, Postnatal Ward and Postoperative Ward.
Population: All Staff Nurses and Nursing Students.

Sample: Staff Nurses and Nursing Students Available In NMCH at Nellore.
Sample Size: 15 Staff Nurses and 15 Nursing Students.
Sampling Technique: Non Probability Convenience Sampling Technique.

Criteria for Sample Selection
Inclusion Criteria
- Staff nurses and nursing students
- Who are posting in pediatric ward, NICU, PICU, postnatal ward and postoperative ward, Narayana Medical College Hospital, Nellore.
- Willing to participate in the study

Exclusion Criteria
Staff nurses and nursing students
- Who are not available during the data collection.
- Who are not willing to participate in the study.

Method of Data Collection
For the study, semi structured questionnaire was used.
The tool consists of two parts.
Part – I: Deals with socio demographic data.
Part – II: Deals with semi structured questionnaire.

Data Collection Procedure
After obtaining formal permission from the concerned authority from Narayana Medical College Hospital. The purpose of the study was explained to staff nurses and Nursing Students. The subjects were selected by using non-probability convenience sampling technique. Data was collected by using semi structured questionnaire. The data collection procedure was carried out in Narayana Medical College Hospital, Nellore for a period of 7 days.

Plan for Data Analysis
The data was analyzed in terms of objectives of the study by using descriptive and inferential statistics.
Frequency and Percentage distribution of socio demographic variables.
Mean and Standard Deviation
Chi-Square was done to find the association between the level of knowledge and socio demographic variables.

Results
Description of socio demographic variables among staff nurses
The demographic variables data explain that out of 15 staff nurses on the basis of age of staff nurses 13(86.7%) were between 22-24 years, 2 (13.3%)were between 25-27 years of age group. on basis of gender 15(100%) staff nurses were females. on the basis of educational qualification 3(20%) of staff nurses were completed GNM, 1 (6.7%) was completed PBBSC (N) and 11 (73.3%) were completed BSC (N). on the basis of marital status all 15(100%) of staff nurses were single r on the basis of. duration of experience 7(46.7%) staff nurses were had <1 year of experience, 6(40%) were had 1-3 years, 2(13.3%) were had 4-5 years of experience regarding collection of stool specimen for infants. duration of experience, it was observed that majority 7(46.7%) staff nurses were had <1 year of experience, 6(40%) were had 1-3 years, 2(13.3%) were had 4-5 years of experience, on the basis of source of information, it was observed that majority, 5(33.3%) of staff nurses got information from text

books, 1 (6.7%) was get information from journals and 1 (6.7%) was get information from Curriculum and 8(53.3%) got information from all the above (text books, journals, Curriculum), on the basis of. attended any in service educational programs 4(26.7%) of staff nurses had attended in service educational program and 11 (73.3%) of staff nurses have not attended in service educational program regarding collection of stool specimen for infants.

Description of socio demographic variables among nursing students.
The demographic variables data explain that out of 15 nursing students on the basis of age 2(13.3%) between 18-19 years, 6(40%) were between 19-20 years, 4(26.7%) were between 21-22 years and 3 (20%) were between 22 years above of age group, on the basis of educational qualification, 9(60%) were studying BSC nursing and 6 (40%) were studying PBBSC (N),on the basis of source of information, 7 (46.6%) of nursing students got from text books, 1 (6.7%) was got from CNE programs, 2(13.3%) were got from internet, 1(6.7%) was got from journals and 4 (26.7%) were (text books, CNE programs, internet, journals) got from all, on the basis of attended to any workshop

7(46.7%) nursing students had attended workshop and 8(53.3%) of nursing students had not attended workshop. on the basis of any witness regarding collection of stool specimen 8(53.3%) of nursing students were had witness and 7 (46.7%) of nursing students were no witness regarding collection of stool specimen for infants.

Table 1: The level of knowledge regarding collection of stool specimen for infants among staff nurses.

Level Of Knowledge	Staff Nurses	
	Frequency	Percentage
Moderate adequate	9	60
Inadequate	6	40
Total	15	100

Table 2: The level of knowledge regarding collection of stool specimen for infant among nursing students.

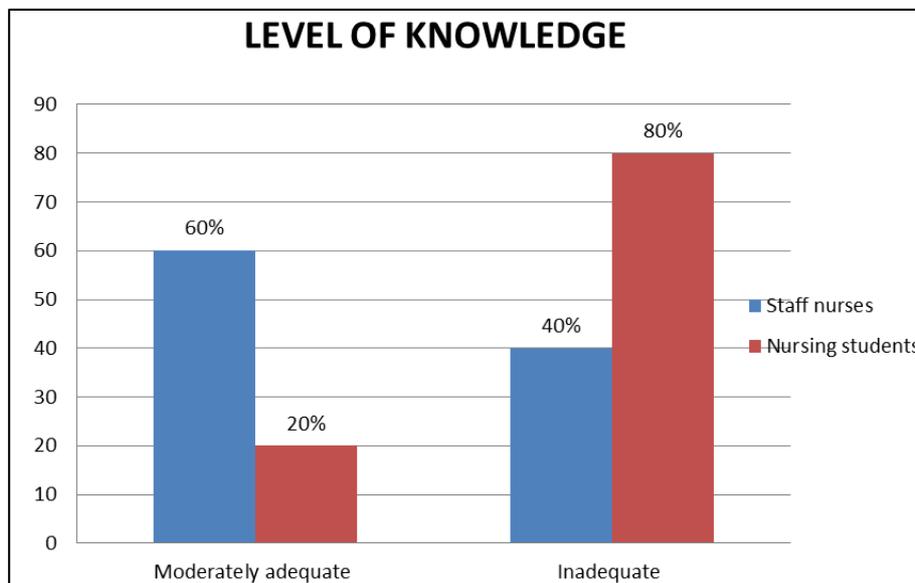| Level Of Knowledge	Nursing Students	
	Frequency	Percentage
Moderate adequate	3	20
Inadequate	12	80
Total	15	100

Fig 1: Comparison of level of knowledge knowledge between staff nurses and nursing students regard to collection of stool specimen for infants. (N-30)

Mean knowledege score and standard deviation of level of knowledge of Staff Nurses and Nursing Students.
The findings Revealed that staff nurses mean knowledge score is 20.2 and standard deviation is 6.1896. And nursing students mean knowledge score is 16.133 and standard deviation 5.9430.
The Association between knowledge of staff nurses regarding collection of stool specimen for infants and the selected socio demographic variables.
The study findings revealed that there was no significant association between the level of knowledge and with their socio demographic variables like age, gender, educational qualification, experience, source of information and attended any in service educational programs regarding collection of stool specimen for infants among staff nurses.
The Association between knowledge of nursing students regarding collection stool specimen for infants and the selected socio demographic variables.

There was significant association between the level of knowledge and with their socio demographic variables like that there is no significant association between the collection of stool specimen for infants with their socio demographic variables like age, educational qualification, source of information, attended any workshop and Have any witness regarding collection of urine specimen for infants among nursing students.

Conclusion
The study findings concluded that majority of the staff nurses have adequate knowledge than the nursing students regarding collection of stool specimen for infants. There was no significant association between the level of knowledge and with their socio demographic variables regarding collection of urine specimen for infants among Staff Nurses and Nursing Students.

References
1. Parul Datta. Test book of pediatric nursing Third edition, Jaypee brother publication, 2001, 64-70.
2. Piyusha Gupta. Text book of GHAI essential pediatrics, sixth edition, CBS Publication, 2010, 136-137.
3. Dr. Neelam Makol. Neonatal assessment 'health action' publication secunderabad, 2005; 6:4-8.
4. Revathi D. effectiveness of structured teaching programme on knowledge regarding postpartum haemorrhage among mphw students in selected mphw schools, hyderabad, a.p. International Journal of Recent Scientific Research. 2015; 6(10):6685-6689.
5. Willam. Department of state, bearo of western knowledge regarding neonatal assessment http://www.baby center.co.uk/ref cap. Retrieved September, 2010, 12.
6. Lipman. Neonatal assessment, 2011. ;http://journal of pediatric health nursing; medline.com retrived on 28-3-2015.
7. Cassidy. Neonatal assessment, 2009. http:// online library; wiley.com Retrived on 25-3-2015.
8. Para medical nursing time, neonatal assessment, 2006; 3(4):3-6. Publication Hyderabad, Edition 5, Neelam makol, june, neonatal assessment, health action' publication Hyderabad, Edition, 2005; 4:7-10.
9. Dutta DC. The text book of obstetrics" seventh edition, new central book agency (p) ltd publication, 2007, 444-446.
10. Dr. John. Neonatal assessment, 'health action' publication secunderabad, 2004; 3:22-25.
11. Dr. Rao VN. Neonatal assessment, 'health action' publication Secunderabad, 2004; 2:23-24.
12. Dr. Neelam Makol. Neonatal assessment 'health action' publication secunderabad, 2005; 6:4-8.
13. Shanthi Johnson Bsc (N), july-december neonatal assessment 'indian journal of continuing nursing education; number1, number-2, publication Vellore, 2005; 6:33-45.
14. Ramya K, Athira Babu, Indira S, Suganya, Dadam Revathi. Knowledge regarding oral hygiene among staff nurses and nursing students. International Journal of Applied Research. 3(10):153-155.
15. Swapna. nandimandalam. Knowledge on Care of preterm labor among primi paramothers in selected maternity hospitals, Kurnool. Narayana Nursing Journal, 2017.
16. Merlin Golda, Revathi D, Subhashini N. Assess the effectiveness of cold application on preprocedure (AV fistula puncture) pain among hemodialysis patients in tertiary care hospital, Nellore, International Journal of Applied Research, 2(6):660-664.
17. Ramya K, Dadam Revathi, Rama Harika B, Athira Babu. A study to assess the knowledge regarding catheterization among staff nurses and nursing students in Narayana medical college hospital, Nellore, International Journal of Applied Research. 2(10):322-324.
18. Ms. Dadam Revathi, Ms. Toniya Kurian, Mrs. N swapna, Ms. V Suganya, Ms K Ramya. A Study to assess the knowledge regarding Creche among staff nurses and nursing students in Narayana Medical College Hospital, Nellore. International Journal of Applied Research. 3(10):118-121.
19. Suganya V, Bincy Jacob, Revathi D, Ramya K. Nutritional status of under five children. International Journal of Applied Research. 3(5):594-598.
20. Suganya V, Bibitha Baby, Revathi D, Ramya K. Knowledge on home management of diarrhoea among mothers of under five children. International Journal of Applied Research. 3(5):376-380.
21. Dadam Revathi, Surya Mohan K. A study to assess the knowledge regarding collection of urine specimen for infants among staff nurses and nursing students in NMCH, Nellore. International Journal of Applied Research. 3(4):187-189.
22. Swapna N, Revathi D, Subhashin N, Arundhathi S, Indira S. A study to assess the Effectiveness of self-instructional module on nursing care of child under phototherapy among staff nurses at Narayana medical college Hospital, Nellore, IJAR. 3(6):1025-1027.
23. Paul D, Sarithareddy VR, Indira A, Revathi D. A study to assess the knowledge regarding renal rehabilitation among staff nurses in NMCH, Nellore, IJAR. 3(8):345-347.
24. Merlin Golda, Revathi D, Subhashini N. Assess the effectiveness of cold application on preprocedure (AV fistula puncture) pain among hemodialysis patients in tertiary care hospital, Nellore. International Journal of Applied Research, 2(6):660-664.
25. Ramya K, Dadam Revathi, Rama Harika B, Athira Babu. A study to assess the knowledge regarding catheterization among staff nurses and nursing students in Narayana medical college hospital, Nellore. International Journal of Applied Research. 2(10):322-324.
26. Ms. Dadam Revathi, Ms. Toniya Kurian, Mrs N swapna, Ms. V Suganya, Ms K Ramya 5. A Study to assess the knowledge regarding Creche among staff nurses and nursing students in Narayana Medical College Hospital, Nellore,International Journal of Applied Research. 3(10):118-121.
27. Suganya V, Bincy Jacob, Revathi D, Ramya K. Nutritional status of under five children. International Journal of Applied Research. 3(5):594-598.
28. Suganya V, Bibitha Baby, Revathi D, Ramya K. Knowledge on home management of diarrhoea among mothers of under five children. International Journal of Applied Research, 3(5):376-380.
29. Dadam Revathi, Surya Mohan K. A study to assess the knowledge regarding collection of urine specimen for infants among staff nurses and nursing students in NMCH, Nellore. International Journal of Applied Research. 3(4):187-189.
30. Swapna N, Revathi D, Subhashin N, Arundhathi S, Indira S. A study to assess the Effectiveness of self-instructional module on nursing care of child under phototherapy among staff nurses at Narayana medical college Hospital, Nellore, IJAR. 3(6):1025-1027.
31. Paul D, Sarithareddy VR, Indira A, Revathi D. A study to assess the knowledge regarding renal rehabilitation among staff nurses in NMCH, Nellore, IJAR, 3(8):345-347.